

Transitioning to Online Training: Assessment of Students Perceptions and Needs

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Since the World Health Organization announced Covid-19 as a pandemic in March 2020, education systems around the world have been profoundly disrupted, in attempts to flatten the infection curve and contain the spread of the virus. Schools, universities, and colleges responded by enacting temporary closures, impacting nearly 1.6 billion learners in more than 190 countries and around 8.4 million learners in Saudi Arabia (UNESCO, 2020). Such closures have accelerated the investment and development of online learning environments so as not to disrupt learning. In Saudi Arabia, all educational institutions were suspended since March 9th, 2020, and, like other countries, including China, Italy, France and Germany, the Ministry of Education instituted distance learning for the first seven weeks of the new academic year (Naar, 2020; Azzi-Huch & Shmis, 2020).¹

Ensuring learning continuity through distance learning necessitates addressing inequality in students' access to hardware, software, the internet as well as the proper use of digital platforms and educational technology. It also requires reducing the digital gap across schools, or the capacity of each school to provide suitable digital learning for students (Moreno & Gortazar, 2020; Zhong, 2020). According to Principals' Questionnaire in the Program for International Student Assessment (PISA) 2018, only 35% to 55% of 15-year-old students in Saudi Arabia are in schools that offer an effective online learning support platform (Moreno & Gortazar, 2020). At the household level, 53% of households in the Kingdom own a computer, while the majority of the population have access to the internet using mobile broadband connection (GaStat, 2019).

As for perceptions of online learning among students themselves, a few studies have examined students in college and secondary levels.² In general, students recognize elearning as an acceptable form of learning especially as a supplement to the traditional form of learning (Pozgaj & Knezevic, 2007; Journell, 2010; Adnan & Anwar, 2020) with a preference for combining in-class and online coursework (Office of Information Technology, 2014; Eldeeb, 2014). Recent surveys indicate that undergraduate students see online education as generally less motivational and less effective than in-class learning, especially in acquiring specific skills (Charles Koch Foundation, 2020). Major advantages to distant learning as identified by students include convenience of learning from home, lower costs due to reductions in expenditures including commute to school and study materials, easy access to information and autonomy provided by online instruction (Pozgaj & Knezevic, 2007; Journell, 2010; Poole, 2000; Petrides, 2002; Dewstow & Wright, 2005; Office of Information Technology, 2014; Mukhtar, et al., 2020). The biggest drawbacks, however, included all of the following: lack of communication and interaction with other students and teachers, issues related to technology, access to internet and availability of desktops/laptops, instructors' delayed response time compared to in-class training, difficulty in asking questions or getting answers, reduced motivation, as well as the harm of working long hours on the computer (Pozgaj & Knezevic, 2007; Journell, 2010; Adnan & Anwar, 2020; Petrides, 2002; Dewstow & Wright,

¹ School closure and distance learning was later extended to the full academic year 2020-2021 after writing this brief.

² The reviewed literature covered multiple geographies including US, New Zealand, India and Pakistan.



2005; Office of Information Technology, 2014; Mukhtar, et al., 2020; Vonderwell, 2003; Bardour, et al., 2008; Amita, 2020).

Apart from a few studies that address the perceptions, attitudes and readiness for online learning of university students in Saudi Arabia (Al-Harbi, 2011; Asiry, 2017; Linjawi & Alfadda, 2018), no evaluation has been sourced focusing on secondary-level students, especially those from low socio-economic backgrounds.

This brief presents results of a survey carried out by Alnahda Program for Research on secondary students within Alnahda's low-income beneficiary households and looks at 1) perceptions of distant online training offered in the context of an after-school mentorship program called "Mustaqbali", and 2) areas where students need support the most, given the sudden transition to online education for the new academic year.

Overall, this survey found that students are skeptical about the effectiveness of online training compared to traditional in-class learning and still prefer the latter mode of delivering education. As for needed support, on the technical level, lower-income students strugale with poor internet connection and limited access to hardware, such as laptops and desktops. On the personal level, support needed in developing soft skills, such as goal setting and time/stress management to optimize the outcomes of online education. As for cognitive skills, such as concentration and the ability to retain information, almost a third of respondents expressed a drop in their levels of concentration and participation with online training, mainly due to losing interest during class or experiencing distraction, such as noise and presence of other family members. Additionally, reduced face-to-face interaction and lack of sufficient communication in class and sense of community among students were also highlighted by students as drawbacks of online learning. Finally, with all the unexpected health, economic and social shocks that the students have had to endure during the past year, counselling and psychological support would be key to addressing the prevalence of distress levels experienced among students, especially females, who registering higher stress levels compared to males.



SCOPE OF THE STUDY

Alnahda Society's Mustaqbali Program

"Mustaqbali" is a three-year after-school mentorship program offered to female secondary students of Alnahda's beneficiary households. Alnahda beneficiaries come from low socio-economic backgrounds, with an average monthly household income of SAR 2,500, 84% lower than the average in Riyadh administrative region (GaStat, 2018). The program takes a participatory approach and uses a mix of training and mentorship to aid students in developing life and technical skills (like communication skills, self-confidence, leadership and decision-making skills, computer and programming skills), support students with career assessment and university preparation and offer one-to-one career guidance and counselling. Traditionally, in-class training is offered within Alnahda premises and each student receives up to 88 training hours per year.

In April 2020, Mustaqbali program suspended in-class training and adopted online training as part of Alnahda's attempt to maintain delivery of the program while upholding social distancing. Since then, students received an average of 20 training hours online. In addition to the online training within the standard program curriculum, third year "Mustaqbali" students were offered 15 hours of supplementary educational online lectures in English, Chemistry and Mathematics. Online training was run using Zoom, Webex as well as in-class.

Research methodology and survey design

The survey was implemented between August 20-29, 2020, right before the start of the academic year of 2020-2021. The survey targeted male and female students of Alnahda's beneficiary households. Specifically, the targeted sample included female students who were enrolled in all three cohorts of Mustagbali program until August 2020, who represent most female secondary students within households supported by Alnahda. The Mustagbali sample consisted of graduates of Grade 10, 11 and 12 of the academic year 2019-2020. In addition to Mustagbali students, the sample included male graduates of Grade 10 and 11, as well as male and female graduates of Grade 9, who were also among Alnahda beneficiaries. Survey responses were collected using an online web-based survey, disseminated to female and male secondary students using WhatsApp. The survey instrument comprised of two sections: the first section was addressed only to Mustagbali students and aimed to gauge their perceptions of the advantages and drawbacks of transitioning the Mustaqbali program online. Section two of the survey was completed by all participants and aimed to identify the most pressing technical, educational, psychological and soft skills needs for a successful transition to online school learning. The survey included a combination of Likert-scale and multiplechoice questions.



Respondent profile

The survey was shared with a total of 285 students: 22% were graduates of Grade 9 and 78% were graduates of Grade 10, 11 and 12 in the academic year 2019-2020. Females represented 69% of the target sample. A total of 183 students consented and participated to the survey, with a response rate of 64% and a very low non-consent rate of less than 1%. Respondents were on average 17 years old; in line with the gender distribution in the population. As for gender distribution, females were over-represented in the sample. The Grade distribution followed that of the general population as well. Respondents' profile is summarized in Table 1.

Item	Range	Number	Percent
Cender	Male	34	19%
Gender	Female	149	81%
	14	1	<1%
	15	20	11%
	16	35	19%
A G G	17	49	27%
Age	18	52	29%
	19	18	10%
	20	4	2%
	>20	3	2%
Graduates of Grade (X)	Grade 9	37	20%
in the academic year	Grade 10	50	28%
2019-2020	Grade 11	53	29%
	Grade 12	41	23%

Table 1. Summary of respondents' profile



STUDENTS' PERCEPTIONS OF ONLINE TRAINING WITHIN "MUSTAQBALI" PROGRAM

Mustaqbali students were asked to compare online to in-class training and results show a high degree of skepticism about the effectiveness of online training, which respondents view as inferior to in-class training. More than half of respondents believe online training is less effective as a way to gain knowledge and acquire skills, while 28% do not report any change (figure 1). Almost all respondents either prefer having in-class training or a combination of online and in-class training formats for any future program offered to them by Alnahda Society (figure 2).





Figure 1. Compared to in-class training, how did you find offering Mustaqbali training online as a way to gain knowledge and acquire skills? (n=123)



Effectiveness of online training

In line with findings of the literature reviewed for this research, the main disadvantages of online training, as indicated by students, include lack of sufficient communication and in-class interaction, and loss of sense of community with the instructor and classmates. Another key disadvantage relates to meeting individual learning needs. However, and contrary to general literature, cost reduction and increased convenience were not perceived as strong advantages of transitioning online (table 2). Two possible explanations could support these findings: first, students might not immediately notice a reduction in costs as Alnahda Society usually covers the transportation, training and food expenses during in-class Mustaqbali training; second, the various technical and social difficulties (detailed below) could compromise convenience in accessing and benefiting from online training.



Table 2.Please rate the effectiveness of online compared to in-class training in the five categories below (n(average)=115)

	Online training is less effective	Online training is as effective	Online training is more effective
Contributing to effective communication and interaction in class	70%	28%	2%
Increasing your sense of community with the instructor and classmates	69%	21%	10%
Offering more convenience	39%	34%	27%
Offering reduction in costs	28%	50%	22%
Meeting individual learning needs	46%	43%	11%



Obstacles to accessing online training

The biggest obstacles faced by Mustaqbali students while participating in online training are poor internet connection in the household and access to hardware, such as desktops or laptops (table 3). The latter might be explained by relatively high student-to-computer ratio especially within lower-income households, even though Alnahda Society has recently overseen the distribution of more than 600 laptops to its household beneficiaries (Proctor, 2020). Students seem to have benefited from the training offered by Mustaqbali program on how to use online platforms, as it is one of the least reported obstacles (table 3).

	Was an obstacle	Neutral	Was not an obstacle
Access to hardware - computer/laptop	30%	22%	48%
Poor electricity	9%	13%	78%
Poor internet connection	38%	22%	40%
Lack of adequate technical skills to use online platforms	13%	43%	44%
Time spent away from home	21%	29%	50%

Table 3. Please let us know if any of the options below were an obstacle to accessing online training under "Mustaqbali" program (n(average)=118)



Drawbacks of online training

As for students' engagement and concentration, almost a third of students indicated a drop in their focus and participation during online training, while impact on distraction and ability to ask questions and obtain answers were less severe (table 4). Students' lack of interest in the topic and incidents of a loud environment due to presence of other family members were selected as the main reasons for diminished engagement and ability to retain knowledge through online training (table 5). Reduced face-to-face interactions with classmates and instructors emerge as key disadvantages of online training according to respondents. Respondents consistently highlight this disadvantage throughout the survey (table 4).

	Disagree	Neutral	Agree
I feel that I participate less	37%	32%	31%
l feel that I can focus less	41%	27%	32%
I feel it is difficult to ask and get answers to questions	52%	30%	18%
l feel like I am more distracted	48%	29%	23%
I miss face-to-face interactions with other students	16%	21%	63%
I miss face-to-face interactions with trainers	12%	18%	70%

Table 4. Please let us know what you think about the following statements when you attended online training sessions under "Mustaqbali" program (n(average)=121)

Table 5. Please select all potential reasons for having less engagement and ability to assimilate knowledge with online classes (n=63)

Note: Percentages indicate the share of student participants that selected the above factors – multiple choice

	Share of respondents
I feel that I am less interested in the topic if I am not in class	46%
My family is always around me and it is loud	40%
I feel shy participating online	19%



STUDENTS' NEEDS FOR OPTIMAL ONLINE LEARNING OUTCOMES

To optimize the transition from in-class to online learning, the survey enquired about the areas where students may need support in the coming year. Secondary male and female students reported greatest need for support in preparing for the official Qudurat (قدرات) and Tahsili (تحصيلي) exams required for college admissions, as well as improving their technical and inter-personal skills. More than a third of respondents indicated the need for mental and psychological support during this period (table 6).

Table 6. Thinking of the coming education year, and considering the possibility that some or all the courses will be offered online, what kind of support do you wish Alnahda Society to offer you? Please select all that apply (n=183)

Note: Percentages indicate the share of student participants that selected the above factors – multiple choice

	Share of respondents
Training for Qudurat	44%
Technical training	40%
Self-improvement workshops	40%
Mental and psychological support	36%
Supplementary educational lessons	34%
Labor market introduction workshops	29%
Soft skills training	29%



Technical and Soft Skills

Specifically, under technical support, students indicated greatest need for good internet connection and access to hardware, such as desktops and laptops. These findings are consistent with the obstacles of online learning as identified by participants (table 3). A lower percentage of students expressed less need for technical support, indicating that students are comfortable handling hardware, software and accessing online platforms (table 7). As for support with personal and soft skills, students prioritized goal settings skills as well as time and stress management (table 7).

Table 7. Which of the technical support options below do you need? Please select all that apply; Which ofthe below soft skills are the most challenging for you to master? Please select all that apply (n=183)Note: Percentages indicate the share of student participants that selected the above factors – multiplechoice

	Share of respondents
Technical Skills	
Access to internet	46%
Access to hardware / computer devices	44%
Knowledge of using computer devices	20%
Knowledge of using different computer software and programs	19%
Knowledge of internet search	10%
Soft Skills	
Goal setting	46%
Time management	42%
Stress management	37%
Communication	34%
Group work	16%



Mental Health

The final dimension that the survey investigated is students' mental health, with the aim of assessing the share of students who are currently facing mild and severe psychological stress and evaluating the need to extend support and counseling. Phycological distress is measured using the Kessler Psychological Distress Scale (K6).³ Survey findings indicate that half of secondary students are experiencing moderate psychological distress, while 20% are enduring severe levels of distress (table 8). Female students' median distress score is 60% higher than that of males and the score is statistically significantly different between the two groups (z = 2.752, n(female)=131 n(male)=30, P=0.0059, two-tailed⁴) at a significance level of 0.05.

Table 8. Secondary students' assessment of psychological distress using the Kessler Psychological Distress Scale (n=161)

	Share of respondents
Low/No Psychological Distress	30%
Mild/Moderate Psychological Distress	50%
Severe/Serious Psychological Distress	20%

³ The Kessler K6 survey questions and score calculation methodology was kindly shared by Dr. Yasmin Altwaijri and Ms. Lisa Bilal from King Faisal Specialist Hospital & Research Center.

⁴ Using Man- Whitney test.



CONCLUSION

The spread of Covid-19 pandemic led to the biggest disruption in education systems around the world. Saudi Arabia is no exception, with online education mandated for the first seven weeks of the academic year of 2020-2021. Alnahda Program for Research surveyed male and female secondary students within Alnahda households to gauge their preliminary reactions towards online training and their projected needs to manage a healthy transition to online learning.

Overall, students are skeptical about the effectiveness of online training compared to the traditional in-class learning format and still prefer the latter mode of delivering education. Lack of sufficient and face-to-face interaction between students and with instructors is a main disadvantage of online training, in addition to a diminished ability to meet individual learning needs. Additionally, almost a third of respondents noticed a drop in their levels of concentration and participation with online training, mainly due to loss of interest in the topic and distractions at home. The biggest technical obstacles faced by students while participating in online training are poor internet connection in the household and limited access to desktops or laptops; besides technical support, students indicated the need to develop their soft skills in goal setting and time/stress management to optimize the benefits of online education. Additionally, more than a third of respondents need mental and psychological support, a finding consistent with the high prevalence of moderate psychological distress levels among students, especially among females.



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